Examiner-Initiated Interview Summary	Application No.	Applicant(s)	
	10/737,350	GEORGES ET AL.	
	Examiner	Art Unit	
	MISOOK YU, Ph.D.	1642	

All Participants:

(1) *MISOOK YU, Ph.D.*.

(2) *Dr. David Chavous*.

Status of Application: _____

(3) _____.

(4) _____.

Date of Interview: *1/5/2007*

Time: _____

Type of Interview:
☒ Telephonic
☐ Video Conference
☐ Personal (Copy given to: ☐ Applicant ☐ Applicant's representative)

Exhibit Shown or Demonstrated: ☒ Yes ☐ No
If Yes, provide a brief description: *Applicant's supplimental response, attached to this interview summary.*

Part I.

Rejection(s) discussed:

Claims discussed:
claims 10-108

Prior art documents discussed:
none

Part II.

SUBSTANCE OF INTERVIEW DESCRIBING THE GENERAL NATURE OF WHAT WAS DISCUSSED:
The examiner contacted applicant to cancel the withdrawn claims for allowance, and also to amend the specfication.

Part III.

☒ It is not necessary for applicant to provide a separate record of the substance of the interview, since the interview directly resulted in the allowance of the application. The examiner will provide a written summary of the substance of the interview in the Notice of Allowability.
☐ It is not necessary for applicant to provide a separate record of the substance of the interview, since the interview did not result in resolution of all issues. A brief summary by the examiner appears in Part II above.

(Examiner/SPE Signature)

(Applicant/Applicant's Representative Signature – if appropriate)

WILMERHALE

FACSIMILE

+1 617 526 6323 (t)
+1 617 526 5000 (f)
david.chavous@wilmerhale.com

Date January 5, 2007

To Examiner Missok Yu
United States Patent and Trademark Office

Fax 571-273-0839
Tel 571-272-0839

cc

From David A. Chavous, Ph.D.

Pages 9 (including cover)

Re **U.S. Application No. 10/737,350**

Our Ref: 112418.149US2/AUR-011US

Dear Examiner Yu:

Attached please find a courtesy copy of the Supplemental Amendment that was faxed today to the official of the USPTO.

Thank you.

PTO/SB/21 (09-06)
Approved for use through 03/31/2007. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission	10

Application Number	10/737,350-Conf. #6000
Filing Date	December 15, 2003
First Named Inventor	Elias GEORGES
Art Unit	1642
Examiner Name	M. Yu
Attorney Docket Number	112418.149US2/AUR-011US

ENCLOSURES (*Check all that apply*)

- [ ] Fee Transmittal Form
  - [ ] Fee Attached
- [x] Supplemental Response (7 pages)
  - [ ] After Final
  - [ ] Affidavits/declaration(s)
- [ ] Extension of Time Request
- [ ] Express Abandonment Request
- [ ] Information Disclosure Statement
- [ ] Certified Copy of Priority Document(s)
- [ ] Reply to Missing Parts/ Incomplete Application
  - [ ] Reply to Missing Parts under 37 CFR 1.52 or 1.53
- [ ] Drawing(s)
- [ ] Licensing-related Papers
- [ ] Petition
- [ ] Petition to Convert to a Provisional Application
- [ ] Power of Attorney, Revocation Change of Correspondence Address
- [ ] Terminal Disclaimer
- [ ] Request for Refund
- [ ] CD, Number of CD(s) _____
  - [ ] Landscape Table on CD
- [ ] After Allowance Communication to TC
- [ ] Appeal Communication to Board of Appeals and Interferences
- [ ] Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
- [ ] Proprietary Information
- [ ] Status Letter
- [x] Other Enclosure(s) (please identify below):
  - Fax Transmittal (1 p.)
  - Certificate of Transmission (1 p.)

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	WILMER CUTLER PICKERING HALE AND DORR LLP		
Signature			
Printed name	James T. Olesen, Ph.D. (Reg. No. 46,967), signing on behalf of Ann-Louise Kerner, Ph.D. (Reg.No. 33,523)		
Date	January 5, 2007	Reg. No.	33,523

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted by facsimile to the Patent and Trademark Office, facsimile no. (571) 273-8300, on the date shown below.

Dated: January 5, 2007 Signature: _____ (Rochelle Capobianco)

6006378

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Georges *et al.*	Art Unit:	1642
Serial No.:	10/737,350	Examiner:	Yu, Misook
Filing Date:	December 15, 2003	Customer No.	23483
Title:	**HSC70 Directed Diagnostics And Therapeutics For Multidrug Resistant Neoplastic Disease**	Conf. No.	6000

CERTIFICATION UNDER 37 CFR § 1.8(a)

I hereby certify that this correspondence is being communicated to the United States Patent and Trademark Office by Facsimile to Fax No. 571-273-8300.

01-05-2007
Date

Rochelle Capobianco
Rochelle Capobianco

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL RESPONSE

Dear Sir:

In response to the Examiner interviews of January 4, 2007 and January 5, 2007, and following Applicant's Amendment and Response to the Office Action dated August 1, 2006, Applicants respectfully submit the following Amendments to conform with formalities as requested by the Examiner.

Amendments to the Specification begin on page 2 of this paper.

Amendments to the Claims begin on page 4 of this paper.

Remarks begin on page 6 of this paper.

Conclusions begin on page 6 of this paper.

AMENDMENTS TO THE SPECIFICATION

Please delete the paragraph on page 19, lines 7-17 of the application, and replace it with the following paragraph.

In particular, this application incorporates the following patent applications by reference in their entirety: U.S.S.N. 60/433,480, filed Dec. 13, 2002 and entitled "Vimentin Detection-Based Methods for Diagnosing and Treating Damaged Cells, Neoplastic Cells and Multidrug Resistance;" U.S.S.N. 60/433,351, filed Dec. 13, 2002 and entitled "Nucleophosmin Detection-Based Methods for Diagnosing and Treating Damaged Cells, Neoplastic Cells and Multidrug Resistance", as well as U.S.S.N. 10/736,889~~YY/XXXXXXX~~, filed Dec. 15, 2003 and entitled "Vimentin Directed Diagnostics and Therapeutics for Multidrug Resistant Neoplastic Disease;" and U.S.S.N. 60/438,012, filed Jan. 1, 2003 and entitled "HSC70 Detection-Based Methods for Diagnosing and Treating Damaged Cells, Neoplastic Cells and Multidrug Resistance," as well as U.S.S.N. 10/737,712 ~~YY/XXXXXXX~~, filed Dec. 15, 2003 and entitled "Nucleophosmin Directed Diagnostics and Therapeutics ~~Therapeutics and Diagnostics~~ for Multidrug Resistant Neoplastic Disease."

Please delete the paragraph on page 76, lines 13-27 of the application, and replace it with the following paragraph.

Examples of pathway-responsive promoters useful in the practice of the present invention include synthetic insulin pathway-responsive promoters containing the consensus insulin binding sequence (Jacob, et al. (1995) J. Biol. Chem. 270:27773-27779), the cytokine pathway-responsive promoter, the glucocorticoid pathway-responsive promoter (Lange, et al.(1992) J Biol. Chem. 267:15673-80), IL1 and IL6 pathway-responsive promoters (Won K.-A and Baumann H. (1990) Mol.Cell.Biol. 10: 3965-3978), T3 pathway-responsive promoters, thyroid hormone pathway-responsive promoters containing the consensus motif, the TPA pathway-responsive promoters (TREs), TGF-beta pathway-responsive promoters (as described in Grotendorst, et al.(1996) Cell Growth and Differentiation 7: 469-480). Additionally, natural or synthetic E2F pathway responsive promoters may be used. An example of an E2F pathway responsive promoter is described in Parr, et al. (1997) Nature Medicine 3:1145-1149) which describes an E2F-1 promoter containing 4 E2F binding sites and is reportedly active in tumor

cells with rapid cycling. Examples of other pathway-responsive promoters are well known in the art and can be identified in the Database of Transcription Regulatory Regions on Eukaryotic Genomes accessible through the internet at world wide web eimb.rssi.ru/TRRD ~~http://www.eimb.rssi.ru/TRRD~~.

Please delete the paragraph on page 90, lines 17-25 of the application, and replace it with the following paragraph.

Another method for determining antigenicity of a polypeptide subsequence is the algorithm of Hopp and Woods ((1981) Proc. Natl. Acad. Sci. 86: 152-6). There are publicly available web sites for Hopp and Woods algorithm analysis of a user-input polypeptide sequence and convenient graphical output of the resulting analysis (see, e.g., hypertext transfer protocol ~~http://~~hometown.aol.com/ _ht_a/lucatoldo/myhomepage/JaMBW/3/1/7/). Using this algorithm to analyze the full-length human HSC70 sequence shown in Figure 14A, several suitable sequence having a high Hopp and Woods antigenic index of an adequate length for immunogenicity were revealed. These include HSC70 amino acid residues: 240-260 (i.e. HFIAEFKRKHKKDISENKRAY); and 480-500 (i.e., IDANGILNVSAVDKSTGKENK).

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (previously presented) A method for detecting multidrug resistance or multidrug resistance potential in a test neoplastic cell, comprising:

a) measuring a level of cell surface-expressed HSC70 protein in the test neoplastic cell of a given origin or cell type; and

b) comparing the level of cell surface-expressed HSC70 protein in the test neoplastic cell to the level of cell surface-expressed HSC70 in a nonresistant neoplastic cell of the same origin or cell type,

wherein the test neoplastic cell is multidrug resistant or has multidrug resistance potential if the level of cell surface-expressed HSC70 in the test neoplastic cell is greater than the level of cell surface-expressed HSC70 in the nonresistant neoplastic cell of the same given origin or cell type.

2. (previously presented) The method of claim 1, wherein measuring the level of cell surface-expressed HSC70 in the test neoplastic cell comprises isolating a cytoplasmic membrane fraction from the cell and measuring the level of HSC70 in the cytoplasmic membrane fraction.

3. (previously presented) The method of claim 1, wherein measuring the level of cell surface-expressed HSC70 in the test neoplastic cell comprises contacting said cell with an anti-HSC70 antibody and measuring the level of antibody bound to cell surface HSC70.

4. (previously presented) The method of claim 3, wherein measuring the level of antibody bound to cell surface HSC70 is by immunofluorescence emission.

5. (previously presented) The method of claim 3, wherein measuring the level of antibody bound to cell surface HSC70 is by radiolabel.

6. (previously presented) The method of claim 1, wherein the test neoplastic cell is selected from the group consisting of a promyleocytic leukemia cell, a T lymphoblastoid cell, a breast epithelial cell, and an ovarian cell.

7. (previously presented) The method of claim 1, wherein the nonresistant neoplastic cell is from a drug-sensitive cell line selected from the group consisting of HL60, NB4, CEM, HSB2 Molt4, MCF-7, MDA, SKOV-3, and 2008.

8. (previously presented) The method of claim 1, wherein the test neoplastic cell is selected from the group consisting of a lymphoma cell, a melanoma cell, a sarcoma cell, a leukemia cell, a retinoblastoma cell, a hepatoma cell, a myeloma cell, a glioma cell, a mesothelioma cell, and a carcinoma cell.

9. (previously presented) The method of claim 1, wherein the test neoplastic cell is from a tissue selected from the group consisting of blood, bone marrow, spleen, lymph node, liver, thymus, kidney, brain, skin, gastrointestinal tract, eye, breast, prostate, and ovary.

10.-108. (cancelled).

REMARKS

1. History

Applicants thank the Examiner for the interviews of January 4, 2007 and January 5, 2007. During the interview of January 4, 2007, the Examiner indicated that the claims were in condition for allowance provided that the Applicants cancelled claims 10-108, which had been withdrawn for prosecution at a later date. The Examiner further stated that amendments to the specification were required prior to allowance.

In the interview of January 5, 2007, the Examiner indicated that Applicants should fax a copy of these amendments to the fax number listed on the Office Action dated August 1, 2006.

2. Claims And Amendments

Applicants cancel claims 10-108, and reserve the right to prosecute the claims at a later date. Accordingly, no new matter is introduced by these Amendments.

Applicants also have amended the specification per the Examiner's request. In particular, the embedded hyperlinks on pages 76 and 90 have been removed to conform to 37 C.F.R. 1.57(d). Also, patent application serial numbers have been provided on page 19, lines 7-27. Therefore, the specification has been amended to conform to Patent Office policy and per the Examiner's request. Accordingly, Applicants submit that no new matter is introduced by these Amendments.

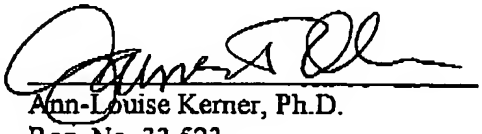
CONCLUSIONS

Applicants again thank the Examiner for the telephonic interviews of January 4, 2007 and January 5, 2007. In view of the amendments requested during those interviews, Applicants request favorable consideration of the pending claims.

No additional fees are believed to be due in connection with this response. However, please charge any underpayments or credit any overpayments to Deposit Account No. 08-0219.

If the Examiner believes that any further discussion of this communication would be helpful, please contact the undersigned at the telephone number provided below.

Respectfully submitted,



Ann-Louise Kerner, Ph.D.
Reg. No. 33,523

James T. Olesen, Ph.D.
Signing for Ann-Louise Kerner, Ph.D.
Reg. No. 46,967

January 5, 2007
WILMER CUTLER PICKERING
HALE AND DORR LLP
60 State Street
Boston, MA 02109
Tel: (617) 526-6000
Fax: (617) 526-5000